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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/060,780	01/30/2002	Travis Myron Cossel	10012156-1 8265		
7	7590 07/12/2005			EXAMINER	
HEWLETT-PACKARD COMPANY Intellectual Property Administration P.O. Box 272400			SHAW, YIN CHEN		
			ART UNIT	PAPER NUMBER	
Fort Collins, (Fort Collins, CO 80527-2400			2135	
			DATE MAILED: 07/12/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

	<u>.</u>				
	Application No.	Applicant(s)			
Office Action Summer	10/060,780	COSSEL ET AL.			
Office Action Summary	Examiner	Art Unit			
	Yin-Chen Shaw	2135			
The MAILING DATE of this communication appeared for Reply	ears on the cover sheet with the c	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply if NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	6(a). In no event, however, may a reply be timwithin the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 30 Ja	nuary 2002.				
2a) ☐ This action is FINAL . 2b) ☑ This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4) ⊠ Claim(s) <u>1-23</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>1-23</u> is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or					
Application Papers					
9) The specification is objected to by the Examiner.					
10)⊠ The drawing(s) filed on <u>30 January 2002</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority under 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list of 	have been received. have been received in Application ity documents have been received (PCT Rule 17.2(a)).	on No ed in this National Stage			
Attachment(s)					
1) Notice of References Cited (PTO-892)	4) Interview Summary				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	atent Application (PTO-152)			
S. Patent and Trademark Office					

DETAILED ACTION

- 1. Claims 1-23 have been submitted for examination.
- 2. Claims 1-23 have been examined and rejected.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- Claims 1-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
 - a Referring to Claim 1:

Claim 1 recites "an authentication system, comprising: a number of authentication agents, each of the authentication agents authenticating at least one user parameter by performing at least one authentication task; and an authentication manager that requests each of the authentication agents to authenticate an unauthenticated user parameter". In Claim 1, the system is determined to be a software system according to application's own disclosure in Fig. 2 (the authentication system is stored in the memory) and in lines 2-3 of [0057] (the authentication system 143 of the present invention is embodied in software or code). The descriptions or expressions of the programs are not physical "things." They are neither computer components nor

statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. Therefore, Claim 1 is rejected under 35 U.S.C. 101 for reciting non-statutory matter relating to software program. In addition, Claim 1 is directed merely to an abstract idea regarding to an authentication matter that is not required to be tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Therefore, Claim 1 is also rejected under 35 U.S.C. 101 for reciting non-statutory matter relating to abstract idea without the need of technological art.

b. Referring to Claims 2-8:

As per Claims 2-8, they inherit the deficiency as in Claim 1. In addition, Claims 2-8 are directed merely to an abstract idea that is not required to be tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Therefore, Claims 2-8 are rejected under 35 U.S.C. 101 for reciting non-statutory matter.

c. Referring to Claim 9:

Claim 9 recites "an authentication method, comprising: providing for a number of authentication agents, each of the authentication agents being configured to perform at least one authentication task; requesting each of the authentication agents to authenticate an unauthenticated user parameter; and obtaining a response from each of the authentication agents indicating whether the unauthenticated user parameter has been authenticated". Claim 9 (the actions of providing, requesting, and obtaining recited in the claim) is directed merely to an abstract idea that is not required to be tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Therefore, Claim 9 is rejected under 35 U.S.C. 101 for reciting non-statutory matter.

d. Referring to Claims 10-15:

As per Claims 10-15, they inherit the deficiency as in Claim 9. In addition, Claims 10-15 are directed merely to an abstract idea that is not required to be tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Therefore, Claims 10-15 are also rejected under 35 U.S.C. 101 for reciting non-statutory matter.

e. Referring to Claim 16:

Claim 16 recites "a computer program embodied on a computer readable medium for performing authentication, comprising: code that embodies a number of authentication agents, each of the authentication agents authenticating at least one user parameter by performing at least one authentication task; and code that embodies an authentication manager that requests each of the authentication agents to authenticate an unauthenticated user parameter". In Claim 16, the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. Therefore, Claim 16 is rejected under 35 U.S.C. 101 for reciting non-statutory matter relating to a computer program. In addition, Claim 16 recites another non-statutory matter based on the applicant's disclosure in the specification in lines 13-16 of [0060] (The computer readable medium can comprise any one of many physical media such as, for example, electronic, magnetic, optical, electromagnetic, infrared, or semiconductor media). The aforementioned electronic, magnetic, optical, electromagnetic, and infrared media are intangible media, and thus, rejected under 35 U.S.C. 101 for reciting non-statutory matter relating to intangible media.

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f. Referring to Claims 17-23:

As per Claims 17-23, it inherits the deficiency as in Claim 16. In addition, Claims 17-23 are directed merely to an abstract idea that is not required to be tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Therefore, Claims 17-23 is rejected under 35 U.S.C. 101 for reciting non-statutory matter.

Claim Interpretation

4. Claims have been afforded their broadest reasonable interpretation. Applicant's language directed to authentication manager is interpreted as equivalent to the authentication engine and authentication host in the authentication server. The claim language, "discover", is interpreted as equivalent to the act included in establishing link(s) between two or more objects for the communication or distribution of relevant information.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 6-7, 9, 11, 13-14, 16, 19, and 21-22 are rejected under 35
 U.S.C. 102(e) as being anticipated by Pang et al. (U.S. Patent 6,446,204).

a. Referring to Claim 1:

As per Claim 1, Pang et al. disclose an authentication system, comprising:

a number of authentication agents [i.e., a plurality of authentication service providers (simply referred to as providers) (lines 1-2, Col. 19)], each of the authentication agents authenticating at least one user parameter by performing at least one authentication task [i.e., Each provider provides a specific authentication function to restrict access to a particular cartridge. For example, a BASIC provider may be associated with the authentication host an used to restrict cartridge access to only those browser request that are associated with a particular username and password pair (lines 26-31, Col. 20); where username and password are the authentication parameters]; and

an authentication manager [i.e., Authentication engine 602, an authentication host 604 (line 67, Col. 18 and line 1, Col. 19)] that requests each of the authentication agents to authenticate an unauthenticated user parameter [i.e., Upon receiving an

authentication request, the authentication engine 602 parses the authentication request into one of more provider requests. The authentication engine 602 then sends the provider request to the authentication host 604 via the object request broker 282 for distribution to the appropriate provider. Upon receiving the provider request from the authentication engine 602, the authentication host 604 forwards each provider request to the appropriate provider (lines 54-62, Col. 21)].

b. Referring to Claim 4:

As per Claim 4, Pang et al. disclose the authentication system of claim 1, further comprising a parameter type associated with each of the authentication agents, wherein each of the authentication agents authenticates the unauthenticated user parameter if the unauthenticated user parameter is of the parameter type associated with the respective authentication agent [i.e., a BASIC provider may be associated with the authentication host and used to restrict cartridge access to only those browser request that are associated with a particular username and password pair. Thus, when the BASIC provider receives a provider request from the authentication host, the BASIC provider searches a predefined username/password access list to determine if access should be provided (lines 28-35, Col. 20). The IP address provider can be used to restrict cartridge access to only

those browser requests that are associated with a particular IP address. Thus, when the IP address provider receives a provider request from the authentication host, the IP address provider searches a predefined IP access list to determine if access should be provided (lines 45-50, Col. 20). Similar results are also for other types of providers, such as DOMAIN name provider in lines 60-66, Col. 20 and DATABASE provider in lines 9-15, Col. 21].

c. Referring to Claim 6:

As per Claim 6, the rejection of Claim 1 is incorporated. In addition, Pang et al. disclose the authentication system of claim 1, wherein: each of the authentication agents transmits an invalid response to the authentication manager upon a failure to authenticate the unauthenticated user parameter; and each of the authentication agents transmits a valid response to the authentication manager if the unauthenticated user parameter is successfully authenticated [i.e., If the BASIC provider finds a username/password match, the BASIC provider sends a message to the authentication host indicating that access should be allowed based on the supplied username and password pair. However, if the BASIC provider does not find a match, the BASIC provider sends a message to the authentication host indicating that access should not be allowed based on the username/password pair (lines 35-42, Col. 20). Similar results are

also for other types of providers, such as DOMAIN name provider in lines 66-67, Col. 20 and lines 1-6, Col. 21, and DATABASE provider in lines 15-23, Col. 21].

d. Referring to Claim 7:

As per Claim 7, Pang et al. disclose the authentication system of claim 1. Pant et al. do not expressly disclose wherein the authentication manager discovers the authentication agents [i.e., Providers are implemented as dynamically linked libraries (DLLs). As such, the providers are loaded into and execute within the same address space as the authentication hosts to which they belong (lines 1-4, Col. 20). The authentication engine 602 then sens the provider requests to the authentication host 604 via the object request broker 282 for distribution to the appropriate provider (lines 56-59, Col. 21)].

e. Referring to Claim 9:

As per Claim 9, Pang et al. disclose an authentication method, comprising: providing for a number of authentication agents, each of the authentication agents being configured to perform at least one authentication task and requesting each of the authentication agents to authenticate an unauthenticated user parameter as in Claim 1. In addition Pang et al. disclose obtaining a response from each of the authentication agents indicating whether the unauthenticated user parameter has been authenticated [i.e., The provider then sends a

response message back up to the authentication engine 602 via the authentication host 604 and the object request broker 282 that indicates whether access should be allowed based on the information contained in the provider request (lines 65-67, Col. 19 and lines 1-2, Col. 22)].

f. Referring to Claim 11:

As per Claim 11, the rejection of Claim 9 is incorporated. In addition, Claim 11 encompasses limitations that are similar to those of Claim 4. Thus, it is rejected with the same rationale applied against Claim 4 above.

g. Referring to Claim 13:

As per Claim 13, the rejection of Claim 9 is incorporated. In addition, Claim 13 encompasses limitations that are similar to those of Claim 6. Thus, it is rejected with the same rationale applied against Claim 6 above.

h. Referring to Claim 14:

As per Claim 14, the rejection of Claim 11 is incorporated. In addition, Claim 14 encompasses limitations that are similar to those of Claim 7. Thus, it is rejected with the same rationale applied against Claim 7 above.

i. Referring to Claim 16:

As per Claim 16, it encompasses limitations that are similar to those of Claim 1. Thus, it is rejected with the same rationale applied against Claim 1 above. In addition, Pang et al. disclose a computer program embodied on a computer readable medium for performing authentication [i.e., The term "computer-readable medium" as used herein refers to any medium that participates in providing instructions to processor 104 for execution (lines 58-60, Col. 4)].

j. Referring to Claim 19:

As per Claim 19, the rejection of Claim 16 is incorporated. In addition, Claim 16 is a computer-readable medium claim corresponding to the system claim 4. Thus, it is rejected with the same rationale applied against Claim 4 above.

k. Referring to Claim 21:

As per Claim 21, the rejection of Claim 16 is incorporated. In addition, Claim 21 is a computer-readable medium claim corresponding to the system claim 6. Thus, it is rejected with the same rationale applied against Claim 6 above.

I. Referring to Claim 22:

As per Claim 22, the rejection of Claim 16 is incorporated. In addition, Claim 22 is a computer-readable medium claim corresponding to the system claim 7. Thus, it is rejected with the same rationale applied against Claim 7 above.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 2, 8, 15, 17, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pang et al. (U.S. Patent 6,446,204).

a. Referring to Claim 2:

As per Claim 2, Pang et al. disclose the authentication system of claim 1. In addition, Pang et al. disclose each response indicating whether the unauthenticated user parameter has been authenticated [i.e., The provider then sends a response message back up to the authentication engine 602 via the authentication host 604 and the object request broker 282. The response message indicates whether access should be authorized based on the information contained in that particular provider request (lines 17-22, Col. 19)]. Pang et al. do not expressly disclose wherein the authentication manager waits for a response from each of the authentication agents. However, Pang et al. disclose the request may be removed from the waiting list and the message may be sent to the browser to indicate that

the request cannot be processed if the request stayed on the waiting list for a predetermined amount of time [i.e., If the revised browser request remains on the waiting list for more than a predetermined amount of time, listener 210 may remove the request from the waiting list and send a message to the browser 202 to indicate that the request could not be processed (lines 60-64, Col. 16)]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Pang et al. to have the predetermined-waiting-time feature incorporated into the authentication process since one would have been motivated to increase the efficiency of the application server (line 9, Col. 13) by imposing an additional restriction on the authentication response waiting time.

b. Referring to Claim 8:

As per Claim 8, Pang et al. disclose the authentication system of claim 7. Pang et al. do not expressly disclose wherein the authentication manager generates a lookup table listing each of the authentication agents that are discovered. However, Pang et al. disclose a function pointer table and a property table maintained in each provider [i.e. Each provider contains a table of function pointers and a properties list. The function pointer table provides pointers to particular provider functions that may be accessed by the authentication host 604. The property list describes the type of authentication information (such

as the identity of the user initiating the request for a cartridge) that are required for accessing the particular provider. According to one embodiment, the property tables include the name of the provider, the location where its DLL is stored on disk and an entry point address (lines 6-15, Col. 20)]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Pang et al. to have the table generated and also maintained by the authentication host since one would have been motivated to conveniently having an authentication host can call the entry point to obtain a list of function pointers that can be used in authenticating a particular provider request (lines 15-17, Col. 20).

c. Referring to Claim 15:

As per Claim 15, the rejection of Claim 14 is incorporated. In addition, Claim 15 encompasses limitations that are similar to those of Claim 8. Thus, it is rejected with the same rationale applied against Claim 8 above.

d. Referring to Claim 17:

As per Claim 17, the rejection of Claim 16 is incorporated. In addition, Claim 17 is a computer-readable medium claim corresponding to the system claim 2. Thus, it is rejected with the same rationale applied against Claim 2 above.

e. Referring to Claim 23:

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As per Claim 23, the rejection of Claim 22 is incorporated. In addition, Claim 23 is a computer-readable medium claim corresponding to the system claim 8. Thus, it is rejected with the same rationale applied against Claim 8 above.

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7. Claims 3, 10, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pang et al. (U.S. Patent 6,446,204) as applied to claims 1, 9, and 16 above, and further in view of Paknad (U.S. Pub. 2002/0069247).

a. Referring to Claim 3:

As per Claim 3, Pang et al. disclose the authentication system of claim 1. Pang et al. do not expressly disclose an external authentication service; and wherein at least one of the authentication agents calls upon the external authentication service to authenticate the unauthenticated user parameter. However, Paknad et al. disclose that external service can be called upon for authentication of the user [i.e., In an embodiment of the invention, outside authentication services 410, such as LDAP, NT, and NIS, may be used to authenticate the user (line 21-24 in [0124])]. Pang et al. and Paknad et al. are analogous art because they are from similar technology relating to the computer information for user identification. It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Pang et al. with Paknad et al. since one would have been motivated to have a system for

creating and managing an electronic network of collaboration sites (lines 2-3 in [0005]). Therefore, it would have been obvious to combine Pang et al. and Paknad et al. to obtain the invention as specified in claim 3.

b. Referring to Claim 10:

As per Claim 10, the rejection of Claim 9 is incorporated. In addition, Claim 10 encompasses limitations that are similar to those of Claim 3. Thus, it is rejected with the same rationale applied against Claim 3 above.

c. Referring to Claim 18:

As per Claim 18, the rejection of Claim 16 is incorporated. In addition, Claim 18 is a computer-readable medium claim corresponding to the system claim 3. Thus, it is rejected with the same rationale applied against Claim 3 above.

8. Claims 5, 12, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pang et al. (U.S. Patent 6,446,204) as applied to claims 4, 11, and 19 above, and further in view of Robbins et al. (U.S. Pub. 2003/015,905,5).

a. Referring to Claim 5:

As per Claim 5, Pang et al. disclose the authentication system of claim 4. Pang et al. further disclose wherein: each of the authentication agents transmits an invalid response to the authentication manager upon a

failure to authenticate the unauthenticated user parameter [i.e., However, if the BASIC provider does not find a match, the BASIC provider sends a message to the authentication host indicating that access should not be allowed based on the username/password pair (lines 35-39, Col. 20). Similar results are also for other types of providers, such as DOMAIN name provider in lines 66-67, Col. 20 and lines 1-6, Col. 21, and DATABASE provider in lines 15-23, Col. 21];

each of the authentication agents transmits a valid response to the authentication manager upon a successful authentication of the unauthenticated user parameter [i.e., If the BASIC provider finds a username/password match, the BASIC provider sends a message to the authentication host indicating that access should be allowed based on the supplied username and password pair (lines 39-42, Col. 20). Similar results are also for other types of providers, such as DOMAIN name provider in lines 66-67, Col. 20 and lines 1-6, Col. 21, and DATABASE provider in lines 15-23, Col. 21].

Pang et al. do not expressly disclose each of the authentication agents transmits a valid response to the authentication manager if the unauthenticated user parameter is of a parameter type that is different than the parameter type associated with the respective authentication agent. However, Robbins et al. disclose an error message is returned to

indicate that validation is not possible [i.e., If the verification agent is unable to verify itself, an error message is returned in block P435. If the verification agent is able to verify itself, the process continues to the next step in block P440 (lines in [0032])]. Pang et al. and Robbins et al. are analogous art because they are from similar technology relating to information verification system. It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Pang et al. with Robbins et al. to have agents returning a valid error message indicating the request is not of the right type since one would have been motivated to improve management of larger applications where multiple object modules and components have to be signed and verified (lines 6-8, in [0038]). Therefore, it would have been obvious to combine Pang et al. and Robbins et al. to obtain the invention as specified in claim 5.

b. Referring to Claim 12:

As per Claim 12, the rejection of Claim 11 is incorporated. In addition, Claim 12 encompasses limitations that are similar to those of Claim 5. Thus, it is rejected with the same rationale applied against Claim 5 above.

c. Referring to Claim 20:

As per Claim 20, the rejection of Claim 19 is incorporated. In addition, Claim 20 is a computer-readable medium claim corresponding to the

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system claim 5. Thus, it is rejected with the same rationale applied against Claim 5 above.

Conclusion

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Hillier et al. (U.S. Patent 6,055,636) disclose a method and apparatus for centralizing the processing of key and certificate life-cycle management. The apparatus contains a security activation module, a security parameter module and a security service provider module, which contains a plurality of secure processing modules.
 - b. Ohashi et al. (U.S. Patent 5,761,309) disclose an authentication system, which has a single master authentication center arranged in the network, the master authentication center sharing with the user a user secret key, and a plurality of slave authentication centers sharing with the master authentication center respective secret keys different from the user secret key.
 - c. Sinn (U.S. Pub. 2002/016,604,9) disclose an identity system for retrieving real time status information for the system's certificates and stores a record of the status. The identity system includes an identity server, which manages many identity profiles. Each of the identity profiles handles different functions.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yin-Chen Shaw whose telephone number is 571-272-8593. The examiner can normally be reached on 8:15 to 4:15 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner' supervisor, Kim Yen Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (tollfree).

YCS

Jun. 29, 2005

KIM VU

SUPERMISORY PATENT EXAMINER TECKNOLOGY CENTER 2100